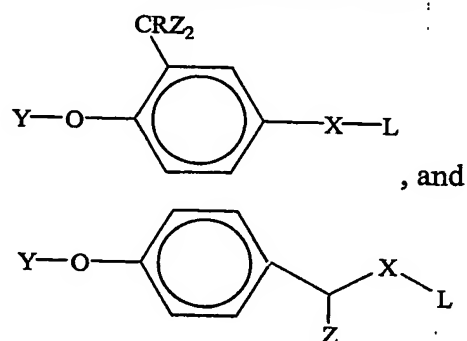


CLAIMS

- 1 1. In an assay for detecting or quantitating an analyte, said assay
 2 employing an analyte-dependent enzyme activation system which reacts with a
 3 substrate portion of a conjugate, said conjugate comprising a detectably labeled
 4 substrate for said enzyme, so as to form an activated conjugate, which activated
 5 conjugate covalently binds to a site on a surface having a receptor for said
 6 activated conjugate, said receptor not being reactive with the analyte-dependent
 7 enzyme activation system, wherein the detectably labeled portion of the bound
 8 conjugate either directly or indirectly generates a signal which is detected or
 9 quantitated, the improvement comprising: using as said conjugate, a compound
 10 having a structure selected from the group consisting of:



- 11 wherein Y is a moiety capable of being cleaved by a hydrolytic enzyme; L is a
 12 detectable label; X is a group linking L to the phenyl group; Z is a halogen; and R
 13 is selected from hydrogen, halogen and alkyl groups.

- 1 2. The assay of claim 1, wherein Z is fluorine.
- 1 3. The assay of claim 2, wherein R is hydrogen.
- 1 4. The assay of claim 1, wherein Y is selected from the group
 2 consisting of: phosphates, phosphate esters, glycosides and alkyl esters.
- 1 5. The assay of claim 4, wherein said glycosides are selected from the
 2 group consisting of galactose and glucose.

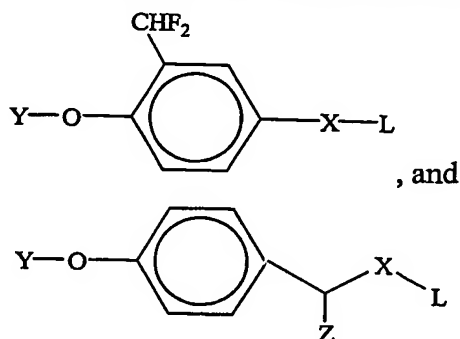
1 6. The assay of claim 1, wherein L is a first member of a specific
2 binding pair.

1 7. The assay of claim 1, wherein L is biotin or dinitrophenyl.

1 8. The assay of claim 1, wherein L is a fluorescent species.

1 9. The assay of claim 8, wherein L is selected from the group
2 consisting of: fluorescein, tetramethylrhodamine, sulforhodamine 101, a cyanine
3 dye, Alexa dye or BODIPY dye.

1 10. An assay for detecting or quantitating an analyte in a sample which
2 comprises:
3 a) immobilizing the analyte on a solid phase to produce a first
4 product;
5 b) reacting the first product of step a) with an analyte-dependent
6 enzyme activation system wherein the analyte-dependent enzyme activation
7 system is a member of a specific binding pair coupled to an enzyme, or is an
8 enzyme, so as to produce a second product;
9 c) providing a compound which is a substrate for said enzyme, said
10 compound having a structure selected from the group consisting of:



11 wherein Y is a group capable of being cleaved by said hydrolytic enzyme, L is a
12 reporter and X is a group linking L to the 2-difluoromethylphenyl moiety;

13 d) reacting the second product of step b) with said enzyme substrate
14 material so as to form an activated conjugate which is a first member of a specific
15 binding pair wherein the activated conjugate deposits covalently on the solid

16 phase by binding to the second member of the specific binding pair on the surface
 17 of the solid phase, said second member not being reactive with the analyte
 18 dependent enzyme activation system, wherein deposited detectable labels
 19 associated with said conjugate either directly or indirectly generate a signal which
 20 is detected or quantitated; and

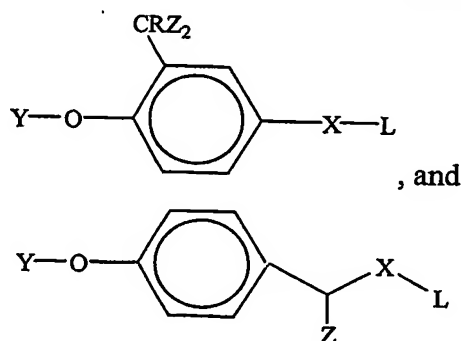
21 e) detecting or quantitating the analyte in the sample from the signal
 22 generated in step d).

1 11. The assay of claim 10, wherein Y is selected from the group
 2 consisting of: a phosphate, a phosphate ester, a glycoside, and an alkyl ester.

1 12. The assay of claim 10, wherein L is a fluorescent species.

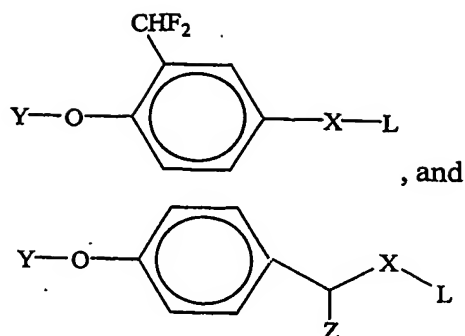
1 13. The assay of claim 10, wherein L is biotin or dinitrophenyl.

1 14. A kit for carrying out a catalyzed reporter deposition employing an
 2 analyte-dependent enzyme activation system, said kit including:
 3 a compound having a formula selected from the group consisting of:



4 wherein Z is a halogen; R is selected from the group consisting of: hydrogen, an
 5 alkyl, and a halogen; Y is a group capable of being cleaved by a hydrolytic; L is a
 6 reporter; and X is a group linking L to the phenyl group; and
 7 instructions for carrying out the assay.

1 15. A compound having a formula selected from the group consisting
 2 of:



wherein Y is a phosphorus-free group capable of being cleaved by a hydrolytic enzyme, L is a reporter and X is a group linking L to the 2-difluoromethylphenyl moiety.

16. The compound of claim 15, wherein Y is a glycoside.

17. The compound of claim 16, wherein said glycoside is selected from galactose and glucose.

18. The compound of claim 15, wherein Y is an ester.

19. The compound of claim 18, wherein said ester is an alkyl ester.

20. The compound of claim 18, wherein Z is fluorine.